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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/902,365	07/10/2001	Fritz Gfeller	954-010306-US(PAR)	8852

7590 05/05/2004

David Aker
23 Southern Road
Hartsdale, NY 10530

EXAMINER	
LAU, TUNG S	

ART UNIT	PAPER NUMBER
2863	

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/902,365	GFELLER ET AL.	
	Examin r	Art Unit	
	Tung S Lau	2863	

-- Th MAILING DATE of this communication appears on the cover sheet with the correspond nc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-11,13,14,16,17 and 22-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *24* is/are allowed.

6)☒ Claim(s) *1-3,5-11,13,16,17,22,23,25 and 26* is/are rejected.

7)☒ Claim(s) *14* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 8/14/2003 fails to comply with 37 CFR 1.98(a)(1), which requires a list of all patents, publications, or other information submitted for consideration by the Office. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 16, 22, 23, 25, 26, 2, 3, 5, 6, 7, 8, 9, 10, 11, 13, 17 are rejected under 35 U.S.C. 102(b) as being anticipated by M. Tomlinson (The Radio and Electronic Engineer, Vol. 46. No 1, November, 1976, page 527-532).

Regarding claim 1:

Tomlinson discloses Apparatus for determining a pulse position for a signal encoded by pulse modulation, the signal comprising a first component and a second component, the apparatus comprising: a determination unit comprising a probability table for providing a value representative of the pulse position in response to receipt of at least one symbol of the first component and at least one symbol of the second component (page 527-529, table 1, 2), wherein the first

component is a first received signal having a first signal quality measure and the second component is a second received signal having a second signal quality measure, said probability table being an asymmetric probability table when said first signal component has a better quality measure than said second signal component (page 528, table 2), and said probability table being a symmetric probability table when said first signal component has an equal quality measure to said second signal component (page 528, table 2).

Regarding claim 16:

Tomlinson discloses a method for determining a pulse position for a signal encoded by a pulse modulation, the signal comprising a first component and a second component, the method comprising the step of providing via probability table (page 527-529, table 1, 2), a value representative of the pulse position in response to receipt of at least one symbol of the first component and at least one symbol of the second component, wherein the first component is a first received signal having a first signal quality measure and the second component is a second received signal having a second signal quality measure (page 527-529, table 1, 2), said probability table being an asymmetric probability table when said first signal component has a better quality measure than said second signal component (page 528, table 2), and said probability table being a symmetric probability table when said first signal component has an equal quality measure to said second signal component (page 528, table 2).

Regarding claim 22:

Tomlinson discloses a computer program comprising program code means for performing, when said program is run on a computer, a method for determining a pulse position for a signal encoded by a pulse modulation, the signal comprising a first component and a second component the method comprising: providing via a probability table (page 527-529, table 1, 2, page 531, fig. 2), a value representative of the pulse position in response to receipt of at least one symbol of the first component wherein the first component is a first received signal having a first signal quality measure and the second component is a second received signal having a second signal quality measure (page 527-529, table 1, 2), said probability table being an asymmetric probability table when said first signal component has a better quality measure than said second signal component (page 527-529, table 1, 2), and said probability table being a svmmetric probability table when said first signal component has an equal measure to said second signal component (page 527-529, table 1, 2).

Regarding claim 23:

Tomlinson discloses a computer program product comprising program code means stored on a computer readable medium for performing, when said program is run on a computer, a method for determining a pulse position for a signal encoded by pulse modulation, the signal comprise a first component and a second component the method comprising: providing via a probability table (page 527-529, table 1, 2, page 531, fig. 2), a value representative of the pulse position in response to receipt of at least one symbol of the first component

wherein the first component is a first received signal having a first signal quality measure and the second component is a second received signal having a second signal quality measure (page 527-529, table 1, 2), said probability table being an asymmetric probability table when said first signal component has a better quality measure than said second signal component (page 527-529, table 1, 2), and said probability table being a svmmetric probability table when said first signal component has an equal measure to said second signal component (page 527-529, table 1, 2).

Regarding claim 25:

Tomlinson discloses apparatus for determining a pulse position for a signal encoded by pulse modulation, the signal comprising a first component and a second component, the apparatus comprising: a determination unit comprising a probability table for providing a value representative of the pulse position in response to receipt of at least one symbol of the first component and at least one symbol of the second component (page 527-529, table 1, 2, page 531, fig. 2), and means for detecting an illegal symbol (page 528, table 1, 2).

Regarding claim 26:

Tomlinson discloses apparatus for determining a pulse position for a signal encoded by pulse modulation, the signal comprising a first component and a second component the apparatus comprising: a determination unit comprising a probability table for providing a value representative of the

pulse position in response to ' receipt of at least one symbol of the first component and at least one symbol of the second component (page 527-529, table 1, 2, page 531, fig. 2), wherein the pulse modulation comprises a four position pulse position modulation (page 530-532, section 4).

Regarding claims 2, 3, 5, 6, 7, 8, 9, 10, 11, 13, 17:

Tomlinson discloses storing the first and second symbol (page 528, table 1, 2); most likely position (page 527-529), the table is diagonally asymmetric (table 1, 2, page 528); the legal symbol of the first component has no influence on the value (page 528, above table 1); the first is better than the second (table 1, 2, page 528); the table is two dimensional (table 2, page 528); use of random access memory and two table are usable (page 528, table 1, 2); detect illegal symbol (page 528, above table 1).

Claim Objections

3. Claims 14 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitation of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: prior art fail to teach the use of infrared.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should

preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Allowable Subject Matter

4. Claim 24 is allowed.

Reasons for Allowance

5. The following is an examiner's statement of reasons for allowance:

Independent claim 24 contains allowable subject matter. None of the prior art of record shows or fairly suggests the claimed invention.

Regarding claim 24:

The primary reason for the allowance of claim 24 is the inclusion of the apparatus for determining a pulse position for a signal encoded by pulse modulation, the signal comprising a first component and a second component including the probability table based on Bayes' probability. It is these features found in the claim, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes this claim allowable over the prior art.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S Lau whose telephone number is 571-272-2274. The examiner can normally be reached on M-F 9-5:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can

be reached on 571-272-2269. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-5841 for Official RightFAX, for regular communications and 703-308-5841 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2815. TC2800 FAX Telephone Numbers: 703-872-9306

TC2800 Customer Service FAX - (703) 872-9317

TL

John Barlow
Supervisory Patent Examiner
Technology Center 2800